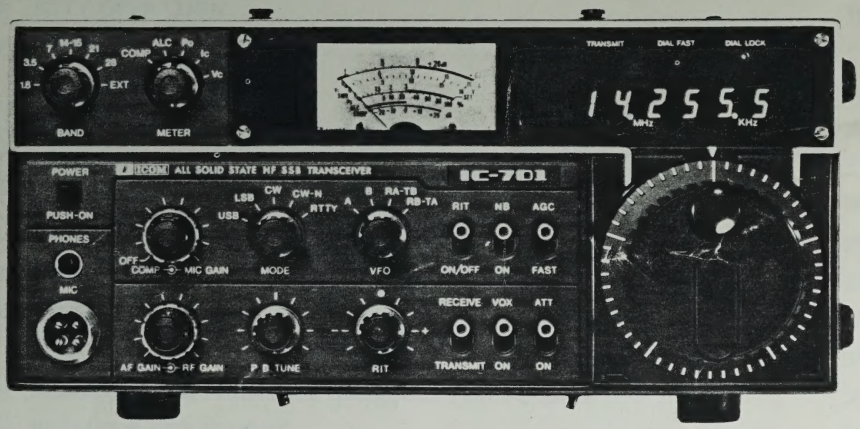
IC-701

HF ALL BAND ALL SOLID STATE TRANSCEIVER

INSTRUCTION MANUAL



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The following is a list of bands and the approximate tuning range of the IC-701:

IC-701 FREQUENCY RANGES

BAND	FREQUENCY SPREAD	REMARKS
160	1.000-2.700 MHZ	MHZ DOESNT INDICATE "2" BANDPASS FILTER AND PLL CONSIDERATIONS MAKE THIS NARROWER YET.
80	3.000-4.999	OPERATION ABOVE 4.6MHZ OR BELOW 3.3MHZ MAY DEGRADE THE PERFORMANCE.- WHEN ABOVE 4MHZ 3 IS STILL DISPLAYED.
40	7.000-7.999	ABOVE 7.4999 RX SENS. AND POWER MAY BE ATT. BY THE BANDPASS FILTER. FREQUENCIES BELOW 7.00 ARE NOT AVAILABLE.
20	14.000-15.999	NORMAL TX AND RX ARE AVAILABLE UP 15.1 MHZ EXTENDED COVERAGE ABOUT 1 MHZ ABOVE THAT.
15	21.000-21.999	OUTSIDE THE HAM BAND SOME DEGRADATION OF THE SIG. IS TO BE EXPECTED.
10	28.000-29.999	NO OUT OF BAND COVERAGE ON 10 METERS AT ALL DUE TO THE CONTINUOUS NATURE OF THE BAND.

FURTHER OPERATIONS ARE LEFT TO THE INDIVIDUAL AMATEUR RADIO OPERATOR LICENSED TO OPERATE ON FREQUENCIES OTHER THAN THOSE DESCRIBED HERE. THIS RADIO IS NOT TYPE ACCEPTED AND DOES NOT MEET THE REQUIREMENTS FOR OPERATION IN THE COMMERCIAL HF SSB BANDS SUCH AS THE MARINE BAND AND SHOULD NOT BE MODIFIED FOR USE IN SUCH AN OPERATION IN VIOLATION OF FCC RULES AND REGS.

MARS OPERATION ON THE IC-701

The operation of the IC-701 takes into account the desires of some IC-701 owners to operate on the MARS (Militery Affiliate Radio System) frequencies. Since this area is outside the ham band frequencies in some cases small modifications must be made to the IC-701 for this opeation. In other cases the frequencies are readily available from the dial.

The most popular of the MARS frequencies lie above the-top end of the HF bands on 40 Meters and 80 Meters. In the case of the 40 Meter frequencies simply tune the frequency desired below 7.49 MHz and operate normally. If the frequency is just outside the top of the tuning range grounding #14 on the 24 pin accessory socket on the back will defeat the auto bandedge detection circuit and make it possible tune to the frequency.

The only complication in this matter is the further the radio is tuned from the bandedge the more the performance of the IC-701 degrades due to the the bandpass filter and or the synthesizer.

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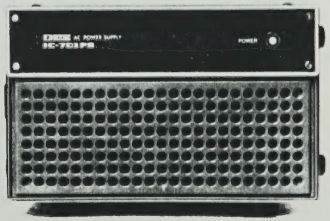
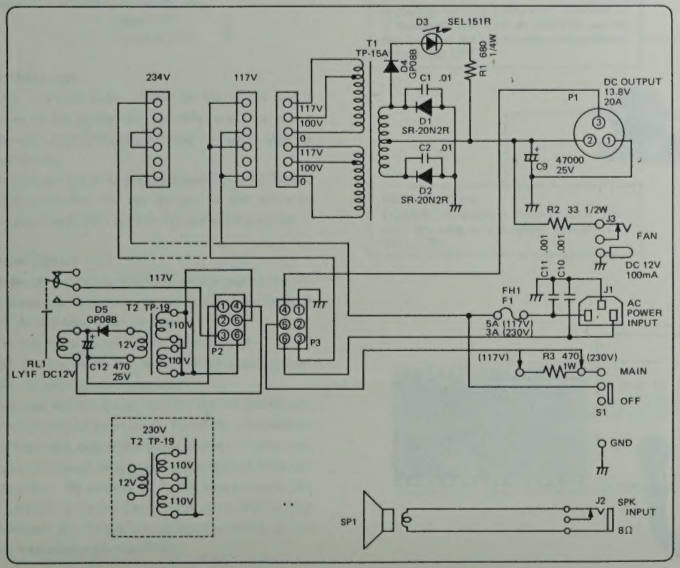
IC-701PS
AC POWER SUPPLY

INSTRUCTION MANUAL



■ IC-701PS SCHEMATIC DIAGRAM



ICOM INCORPORATED
1-6-19, KAMI KURATSUKURI HIRANO-KU,
OSAKA JAPAN

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Thank you for choosing the IC-701PS. This unit is an AC Power Supply for the IC-701, ICOM's Digital All Solid State HF Transceiver.

■ SPECIFICATIONS

• **Number of Semi-conductors:**	Silicon diode	4
	LED	1
• **Input Voltage (suitable voltage):**	117/230V AC (50/60 Hz)	
• **Allowable voltage fluctuation:**	±10% of input voltage (suitable line voltage)	
• **Input Capacity:**	360VA (at 20A load)	
• **Output Voltage:**	DC13.8V (at 20A load)	
• **Max. Load Current:**	20A (10 minutes ON/10 minutes OFF 50% duty cycle)	
• **Polarization:**	Negative ground	
• **Internal Speaker:**	125 x 77 mm 2 watt nominal input 4 watt maximum	
• **Dimensions:**	110 (H) x 180 (W) x 260 (D) mm	
• **Weight:**	Approximately 8 kg	
• **Accessories included:**	AC power cord	1
	Spare fuse	2
	Speaker cord	1

■ BEFORE USE

This is an AC power supply for the IC-701 and is designed to be turned ON and OFF with the power switch on your IC-701; this unit does not have a separate power switch.

As this unit has 20A maximum capacity at 13.8V DC, it is recommended that you do not use this unit with other than the IC-701, even for experimental purposes.

■ HOW TO USE

Connect the DC output plug of this unit to the IC-701 power connector securely, as shown in the figure at right. At this time, make sure that

(1) the power switch on the IC-701 is OFF,

(2) the T/R switch is at the RECEIVE position, and

(3) no microphone is connected.

Connect the AC power cord to the AC power connector on the rear panel of the IC-701PS. Connect the AC power cord plug in the power outlet. At this time, the remote control relay in this unit will be at the stand-by position. By turning the IC-701 power switch ON, this unit will be turned ON and the power display LED illuminated. For further operating information, see the instruction manual for the IC-701.

■ FUNCTIONS

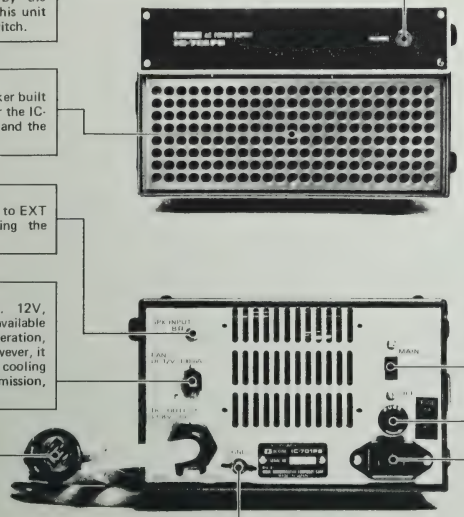
Power Display LED
Is illuminated when power is ON. The power ON/OFF is controlled by the power switch of the IC-701. This unit does not have a separate power switch.

Speaker
There is a 125 x 77 mm oval speaker built in. Use as the external speaker for the IC-701. The impedance is 8 ohms and the input power is 2 watts.

SPK INPUT Jack
Speaker input jack for connecting to EXT SPK jack of the IC-701, using the included speaker cord.

Fan Power Jack
Jack for cooling fan connection. 12V, approximately 100mA is available through this jack. For normal operation, a cooling fan is not necessary; however, it is recommended that an optional cooling fan be used for continuous transmission, such as for RTTY.

DC Output Plug
DC13.8V is available at up to 20A. Connect this plug to the power connector of the IC-701.

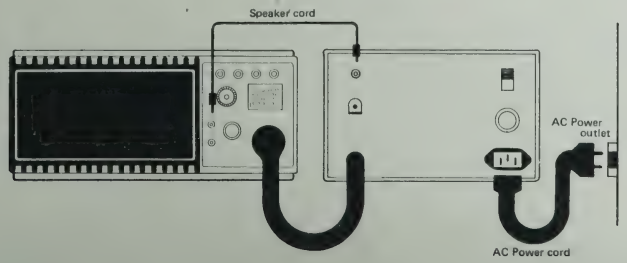


Main Switch
The power ON/OFF of this unit is remote-controlled by the power switch of the IC-701. The relay for this remote control is connected continuously to the AC power line and consumes 2VA. The power consumption of the relay is so little when the power switch is OFF that you need not worry about overheating. But it is recommended that the Main Switch be turned OFF when the unit is not used for a long time. When the Main Switch is OFF, the power can not be turned ON by the power switch of the IC-701.

Fuse Holder
Fuse holder for the AC power line. If the fuse blows, replace with a 5A (at 117V) or 3A (at 230V) fuse after checking the cause of the problem. Use a philips (+) screwdriver to open the holder. The outside ring of the holder can not be rotated.

AC Power Connector
Connect the included AC power cord.

GND Terminal
Ground this terminal with as short a wire as possible to protect from shock.



● HOW TO USE THE INTERNAL SPEAKER

Use the included speaker cord to connect the SPK INPUT jack on the rear panel of the IC-701PS and the EXT SPK jack on the rear panel of the IC-701.

The impedance and nominal input power of the speaker in this unit are 8 ohms and 2 watts, respectively, and this speaker can be used with any transceiver with these specifications. This speaker is designed for communication purposes and is not suitable for Hi-Fi use.

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OSAKA JAPAN

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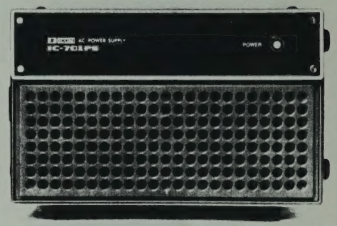

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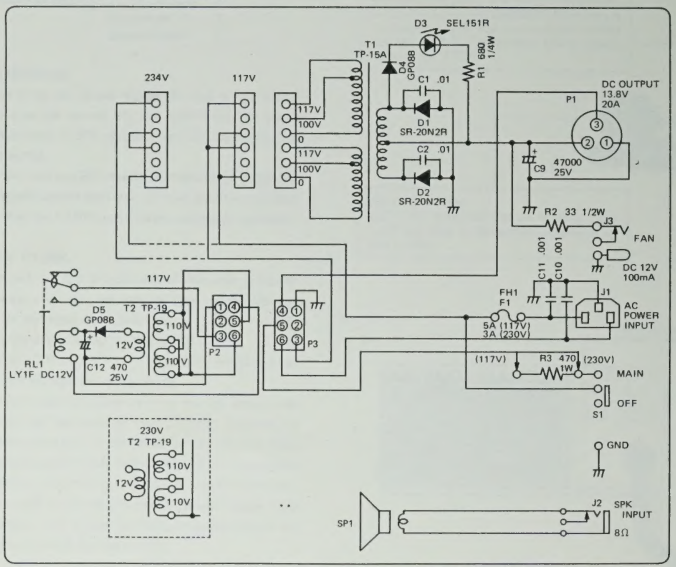

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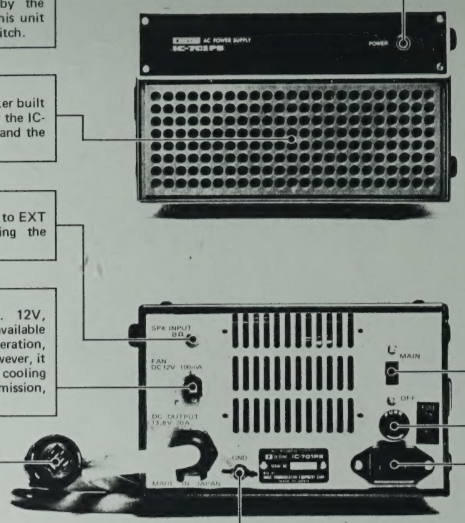

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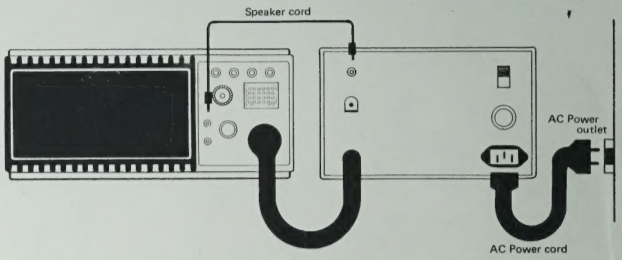

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